

Applicant: Vilho Nissinen et al.
Application No.: 10/501,607
Response to Office action dated May 14, 2008
Response filed September 8, 2008

Claim Listing

- 1–6. (cancelled)
7. (withdrawn) A nozzle array for use in coating a paper web, comprising:
a plurality of liquid coating nozzles arrayed in a transverse direction across the web,
the nozzles connected to a source of high-pressure liquid coating, the nozzles
arranged to spray a coating mixture onto the web;
wherein each nozzle of the array defines a nozzle open area, and each nozzle has an
acting variable proportional to liquid coating flow through said nozzle; and
wherein for all the nozzles of the array, the acting variable varies from a mean by less
than 5% of the mean.
8. (withdrawn) The nozzle array of claim 1 wherein the acting variable varies
from a mean by less than 2% of the mean.
9. (withdrawn) The nozzle array of claim 1 wherein the acting variable is the
defined nozzle open area.
10. (withdrawn) The nozzle array of claim 1 wherein each nozzle of the array
defines a diameter and the acting variable is the defined diameter.

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11. (previously presented) A method of coating a paper web comprising the steps of:

selecting a plurality of high-pressure liquid coating nozzles, wherein each nozzle has an acting variable value, said acting variable value being proportional to a liquid volume coating flow through said nozzle at a given pressure;

further selecting each of the plurality of high-pressure liquid coating nozzles so that the acting variable varies from a mean of all the nozzles of the array by less than 5% of the mean;

connecting the plurality of high-pressure liquid coating nozzles to a source of high-pressure liquid coating; and

spraying the paper web with said plurality of high-pressure liquid coating nozzles wherein the nozzles are arranged to achieve an even coating on the paper web.

12 (previously presented) The method of claim 11 wherein the acting variable varies from a mean by less than 2% of the mean.

13. (previously presented) The method of claim 11 wherein the acting variable varies is the defined nozzle open area.

14. (previously presented) The method of claim 11 wherein the acting variable for each nozzle is determined optically .

15. (previously presented) The method of claim 11 wherein each nozzle of the array defines a nozzle open area and wherein the acting variable is determined by a plurality of measurements of diameter of a throat which forms the nozzle open area.

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16. (previously presented) The method of claim 15 wherein the measurements of diameter are determined optically.